46

(2) INFORMATION FOR SEQ ID NO:1:

RAW SEQUENCE LISTING PATENT APPLICATION US/08/882,431A DATE: 04/09/19

1645 #20

DATE: 04/09/1999

INPUT SET: S31372.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

MPR 28 200

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1
                                        SEQUENCE LISTING
 2
 3
            General Information:
     (i) APPLICANT: Robert G. Ulrich,
     Mark A. Olson
     Sina Bavari
     (ii) TITLE OF INVENTION: Bacterial Superantigen
 9
     Vaccines
10
11
     (iii) NUMBER OF SEQUENCES:16
     (iv) CORRESPONDENCE ADDRESS:
     (A) ADDRESSEE: Charles H. Harris
14
     (B) STREET: US Army MRMC -504 Scott Street MCMR-JA (Charles H. Harris-Patent Atty)
     (C) CITY: FORT DETRICK
17
     (D) STATE: MARYLAND
     (E) COUNTRY: USA
19
     (F) ZIP: 21702-5012
20
21
     (V) COMPUTER READABLE FORM:
22
     (A) MEDIUM TYPE: Floppy disk
23
     (B) COMPUTER: Apple Macintosh
24
     (C) OPERATING SYSTEM: Macintosh 7.5
25
     (D) SOFTWARE: Microsoft Word 6.0
26
27
     (vi) CURRENT APPLICATION DATA:
28
     (A) APPLICATION NUMBER: 08/882,431
29
     (B) FILING DATE: June 25, 1997
30
     (C) CLASSIFICATION:
31
32
     (vii) PRIOR APPLICATION DATA:
33
     (A) APPLICATION NUMBER:
34
     (B) FILING DATE:
35
36
     (viii) ATTORNEY/AGENT INFORMATION:
     (A) NAME: Charles H. Harris
37
38
     (B) REGISTRATION NUMBER: 34,616
39
     (C) REFERENCE/DOCKET NUMBER:
40
41
     (ix) TELECOMMUNICATION INFORMATION
42
     (A) TELEPHONE: (301) 619-2065
43
     (B) TELEFAX: (301) 619-7714
44
45
```

RAW SEQUENCE LISTING PATENT APPLICATION US/08/882,431A

DATE: 04/09/1999 TIME: 19:23:51

| 47 | (i) SEQUENCE CHARACTERISTICS: | | | | | | | | |
|----|---|------|--|--|--|--|--|--|--|
| 48 | (A) LENGTH: 830 | | | | | | | | |
| 49 | (B) TYPE: Nucleic Acid | | | | | | | | |
| 50 | (C) STRANDEDNESS: Unknown | | | | | | | | |
| 51 | (D) TOPOLOGY: Unknown | | | | | | | | |
| 52 | | | | | | | | | |
| 53 | (ii) MOLECULE TYPE: DNA | | | | | | | | |
| 54 | () Hollood III I. BIR | | | | | | | | |
| 55 | (vi) CEOUENCE DECORTRETON CEO TO TO | | | | | | | | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1: | | | | | | | | |
| 56 | | | | | | | | | |
| 57 | atgaaaaaa cagcatttac attactttta ttcattgccc | 40 | | | | | | | |
| 58 | | | | | | | | | |
| 59 | taacgttgac aacaagtcca cttgtaaatg gtagcgagaa | 80 | | | | | | | |
| 60 | 5 | | | | | | | | |
| 61 | aagcgaagaa ataaatgaaa aagatttgcg aaaaaagtct | 120 | | | | | | | |
| 62 | | 120 | | | | | | | |
| 63 | goottgaagg googgetht I II | | | | | | | | |
| | gaattgcagg gaacagcttt aggcaatctt aaacaaatct | 160 | | | | | | | |
| 64 | | | | | | | | | |
| 65 | attattacaa tgaaaaagct aaaactgaaa ataaagagag | 200 | | | | | | | |
| 66 | | | | | | | | | |
| 67 | tcacgatcaa tttcgacagc atactatatt gtttaaaggc | 240 | | | | | | | |
| 68 | 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 240 | | | | | | | |
| 69 | tttttacag atcattcgtg gtataacgat ttattagtac | 000 | | | | | | | |
| 70 | corrections accarringly grataacyal traitagtac | 280 | | | | | | | |
| - | | | | | | | | | |
| 71 | gttttgattc aaaggatatt gttgataaat ataaagggaa | 320 | | | | | | | |
| 72 | | | | | | | | | |
| 73 | aaaagtagac ttgtatggtg cttatgctgg ttatcaatgt | 360 | | | | | | | |
| 74 | | | | | | | | | |
| 75 | gcgggtggta caccaaacaa aacagcttgt atgtatggtg | 400 | | | | | | | |
| 76 | 5 555 55 - Francisca adougle try talgety | 400 | | | | | | | |
| 77 | gtgtaacgtt acatgataat aatcgattga ccgaagagaa | | | | | | | | |
| 78 | gryraacytt acatgataat aategattga eegaagagaa | 440 | | | | | | | |
| | | | | | | | | | |
| 79 | aaaagtgccg atcaatttat ggctagacgg taaacaaaat | 480 | | | | | | | |
| 80 | | | | | | | | | |
| 81 | acagtacctt tggaaacggt taaaacgaat aagaaaaatg | 520 | | | | | | | |
| 82 | | | | | | | | | |
| 83 | taactgttca ggagttggat cttcaagcaa gacgttattt | 560 | | | | | | | |
| 84 | J was JJajaajaa aadaagaa gaagaaa | 300 | | | | | | | |
| 85 | acaggaaaaa tataatttat ataactctga tgtttttgat | | | | | | | | |
| 86 | deaggaada cacaacttat acaactetga tgtttttgat | 600 | | | | | | | |
| 87 | | | | | | | | | |
| | gggaaggttc agaggggatt aatcgtgttt catacttcta | 640 | | | | | | | |
| 88 | · | | | | | | | | |
| 89 | cagaaccttc ggttaattac gatttatttg gtgctcaagg | 680 | | | | | | | |
| 90 | | - | | | | | | | |
| 91 | acagtattca aatacactat taagaatata tagagataat | 720 | | | | | | | |
| 92 | | , 20 | | | | | | | |
| 93 | aaaacgatta actctgaaaa catgcatatt gatatatatt | 760 | | | | | | | |
| 94 | | 760 | | | | | | | |
| 95 | tototogoog | | | | | | | | |
| | tatatacaag ttaaACATGG TAGTTTTGAC CAACGTAATG | 800 | | | | | | | |
| 96 | | | | | | | | | |
| 97 | TTCAGATTAT TATGAACCGA GAATAATCTA | 830 | | | | | | | |
| 98 | | | | | | | | | |
| 99 | | | | | | | | | |
| | | | | | | | | | |

RAW SEQUENCE LISTING PATENT APPLICATION US/08/882,431A

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| 100 | (2 |) IN | FORM! | TIOI | N FOI | R SE | OID | NO:2 | 2: | |
|-----|--|-----------|-------------|-------|---------|-------|--------|----------|--------------|--------------|
| 101 | (2) INFORMATION FOR SEQ ID NO:2:(i) SEQUENCE CHARACTERISTICS: | | | | | | | | | |
| 102 | (A |) LE | NGTH: | 257 | 7 | | | | | |
| 103 | (B) | TY! | PE: A | Amino | Aci | ld | | | | |
| 104 | (C) | STI | RANDE | DNES | ss: t | Jnkno | wn | | | |
| 105 | (D) | | OLOG | | | | | | | |
| 106 | (i: | | DLECU | | | | tide | <u> </u> | | |
| 107 | (x) | i) SI | EQUEN | ICE I | ESCF | RIPTI | ON: | SEO | ID N | IO:2: |
| 108 | | | | | | | | | | |
| 109 | Met | Lys | Lys | Thr | Ala | Phe | Thr | Leu | Let | Leu |
| 110 | 1 | - | - | | 5 | | | | | 10 |
| 111 | | | | | | | | | | -0 |
| 112 | Phe | : Ile | Ala | Leu | Thr | Leu | Thr | Thr | Ser | Pro |
| 113 | | | | | 15 | | | | | 20 |
| 114 | | | | | | | | | | 20 |
| 115 | Leu | ı Val | . Asn | Glv | Ser | Glu | T.vs | Ser | Glu | Glu |
| 116 | | | | ,2 | 25 | | | | 010 | 30 |
| 117 | | | | | | | | | | 30 |
| 118 | Ile | Asn | Glu | Lvs | Asp | ľ.eu | Ara | T.ve | Tue | Ser |
| 119 | | | | -1- | 35 | 204 | y | my S | цуз | 40 |
| 120 | | | | | | | | | | 40 |
| 121 | Glu | Leu | Gln | Glv | Thr | Δla | T. 011 | G] v | Acn | Leu |
| 122 | | | | , | 45 | 1124 | пец | GLY | MSII | 50 |
| 123 | | | | | | | | | | 50 |
| 124 | Lvs | Gln | Ile | Tvr | Tur | Тул | λen | GT. | T wa | A 7 - |
| 125 | -1- | | | - 7 - | 55 | ı yı | ASII | GIU | гλг | • |
| 126 | | | | | 33 | | | | | 60 |
| 127 | Lvs | Thr | Glu | Agn | T. 17 C | Glu | 807 | uic | X = == | a 1 - |
| 128 | -1- | | | ***** | 65 | Gru | Ser | птэ | ASP | |
| 129 | | | | | 0.5 | | | | | 70 |
| 130 | Phe | Ara | Gln | Hie | Thr | Tlo | T 011 | Dho | T | a 1 |
| 131 | | 9 | | | 75 | 116 | neu | FIIE | гуз | _ |
| 132 | | | | | , 5 | | | | | 80 |
| 133 | Phe | Phe | Thr | Δsn | Hie | Sar | Trn | Tree. | 3 ~ ~ | 1 |
| 134 | | | | nop | 85 | Ser | тгр | ıyı | ASII | _ |
| 135 | | | | | 00 | | | | | 90 |
| 136 | Leu | Leu | Val | Δra | Phe | Aen | Sor | T 110 | A ~~ | 71 |
| 137 | | | | 9 | 95 | пор | Ser | Lys | ASP | 100 |
| 138 | | | | | ,, | | | | | 100 |
| 139 | Val | Asp | Lys | Tvr | T.vs | Gl v | Lve | Luc | Val | N am |
| 140 | | P | -,- | -] - | 105 | CLy | цуS | гуз | vат | _ |
| 141 | | | | | -00 | | | | | 110 |
| 142 | Leu | Tvr | Gly | Δla | Tur | Δla | GT v | Ttrr | al n | C 110 |
| 143 | | - 1 - | - -y | niu | 115 | AIG | СТУ | ıyı | GTH | _ |
| 144 | | | | | 113 | | | | | 120 |
| 145 | Ala | Glv | Gly | Thr | Dro | λan | Tuc | Πb ~ | 27- | a |
| 146 | | <u>-1</u> | O±3 | **** | 125 | ASII | гуз | TIIL | Ата | |
| 147 | | | | | 123 | | | | | 130 |
| 148 | Met | Tur | Gly | Gl v | Val | Πh × | T 011 | T7 | 3 | • |
| 149 | | - 1 - | - y | 9± y | 135 | TIIL | пeп | urs | нар | |
| 150 | | | | | 133 | | | | | 140 |
| 151 | Asn | Δra | Leu | Th ν | alu. | a1 | T~ | T | U - 7 | D |
| 152 | 11 | 9 | Leu | 1117 | 145 | э±и | гÀ2 | гìs | val | Pro |
| | | | | | 7.43 | | | | | 150 |
| | | | | | | | | | | |

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| 162 | | |
|------------|--|----|
| 153 | | |
| 154 | and the led rip led Asp Giy Lys Gin Ash | |
| 155 156 | 155 | |
| 157 | | |
| 157 | The sea of the var Lys The Ash | |
| 159 | 103 | |
| 160 | | |
| 161 | 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - | |
| 162 | 4/3 (8) | |
| 163 | | |
| 164 | and the state of t | |
| 165 | 185 190 | |
| 166 | Many Nov. To | |
| 167 | Tyr Asn Leu Tyr Asn Ser Asp Val Phe Asp | |
| | 195 200 | |
| 168 169 | | |
| 170 | Gly Lys Val Gln Arg Gly Leu Ile Val Phe | |
| | 205 210 | |
| 171 | Trán mha an an an | |
| 172 | His Thr Ser Thr Glu Pro Ser Val Asn Tyr | |
| 173 174 | 215 220 | |
| 175 | Age Tou The et al. | |
| 176 | Asp Leu Phe Gly Ala Gln Gly Gln Tyr Ser | |
| | 225 230 | |
| 177 178 | Arm When I | |
| 178 | Asn Thr Leu leu Arg Ile Tyr Arg Asp Asn | |
| 180 | 235 240 | |
| 181 | Itro Mbm Tl - 2 - 2 | |
| 182 | Lys Thr Ile Asn Ser Glu Asn Met His Ile | |
| 183 | 245 250 | |
| 184 | Ach Ilo Men Iou Man M | |
| 185 | Asp Ile Tyr Leu Tyr Thr Ser | |
| 186 | 255 | |
| 187 | | |
| 188 | (2) INFORMATION FOR THE TRANS | |
| 189 | (2) INFORMATION FOR SEQ ID NO:3: | |
| 190 | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 757 | |
| 191 | (B) TYPE: Nucleic Acid | |
| 192 | (C) STRANDEDNESS: Unknown | |
| 193 | (D) TOPOLOGY: Unknown | |
| 194 | (ii) MOLECULE TYPE: DNA | |
| 195 | (11) MODECOLE TIPE: DNA | |
| 196 | (XI) SECTIFICE DESCRIPTION OF THE PROPERTY OF | |
| 197 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3: | |
| 198 | atgagaaag ggaagaata | |
| 199 | atgagaaaag cgaagaaata aatgaaaaag atttgcgaaa | 40 |
| 200 | aaagtotgaa ttocaoogaa gaaattta | |
| 201 | aaagtctgaa ttgcagggaa cagctttagg caatcttaaa | 80 |
| 202 | Caaatctatt attacaatca accepta | |
| 203 | Caaatctatt attacaatga aaaagctaaa actgaaaata 1 | 20 |
| 204 | aagagagtca cgatcaattt cgacagcata ctatattgtt 1 | _ |
| 205 | | 60 |
| | | |

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| 206 | †222gggt++ +++ | |
|------------|--|-----|
| 207 | taaaggettt tttacagate attegtggta taaegattta | 200 |
| 208 | ttagtacgtt ttgattcaaa ggatattgtt gataaatata | 2 |
| 209 | congrateget tryacticada ggatattgtt gataaatata | 240 |
| 210 | aagggaaaaa agtagacttg tatggtgctt atgctggtta | 200 |
| 211 | and by an and a gray and a gray gray a light lig | 280 |
| 212 | tcaatgtgcg ggtggtacac caaacaaaac agcttgtatg | 320 |
| 213 | b b b bb | 320 |
| 214 | tatggtggtg taacgttaca tgataataat cgattgaccg | 360 |
| 215 | | |
| 216 | aagagaaaaa agtgccgatc aatttatggc tagacggtaa | 400 |
| 217 | | |
| 218 | acaaaataca gtacctttgg aaacggttaa aacgaataag | 440 |
| 219 | | |
| 220 221 | aaaaatgtaa ctgttcagga gttggatctt caagcaagac | 480 |
| 221 | attatttaga ggaaaatat aattat t | |
| 223 | gttatttaca ggaaaaatat aatttatata actctgatgt | 520 |
| 224 | ttttgatggg aaggttcaga ggggattaat cgtgtttcat | |
| 225 | Total adjusticate grant catter cat | 560 |
| 226 | acttctacag aaccttcggt taattacgat ttatttggtg | 600 |
| 227 | and the second of the second o | 600 |
| 228 | ctcaaggaca gtattcaaat acactattaa gaatatatag | 640 |
| 229 | | 040 |
| 230 | agataataaa acgattaact ctgaaaacat gcatattgat | 680 |
| 231 | . . | |
| 232 | atatatttat atacaagtta aACATGGTAG TTTTGACCAA | 720 |
| 233 | CCITA A TICKTORY AND THE AND T | |
| 234 235 | CGTAATGTTC AGATTATTAT GAACCGAGAA TAATCTA | 757 |
| 236 | | |
| 237 | (2) INFORMATION FOR SEQ ID NO:4: | |
| 238 | (1) SEQUENCE CHARACTERISTICS: | |
| 239 | (A) LENGTH: 233 | |
| 240 | (B) TYPE: Amino Acid | |
| 241 | (C) STRANDEDNESS: Unknown | |
| 242 | (D) TOPOLOGY: Unknown | |
| 243 | (ii) MOLECULE TYPE: Peptide | |
| 244 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: | |
| 245 | | |
| 246 | Met Glu Lys Ser Glu Glu Ile Asn Glu Lys | |
| 247 248 | 5 10 | |
| 248 | Ach Tou And Tour Tour Govern | |
| 250 | Asp Leu Arg Lys Lys Ser Glu Leu Gln Gly | |
| 25 | 15 20 | |
| | | |

SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/08/882,431A

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INPUT SET: S31372.raw

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Original Text